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10/066,869	02/04/2002	David J. Cline	1454.2	6059

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Larry K. Roberts  
P.O. Box 8569  
Newport Beach, CA 92658-8569

EXAMINER

POLK, SHARON A

ART UNIT PAPER NUMBER

2836

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/066,869

Applicant(s)

CLINE ET AL.

Examiner

Sharon Polk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 20-23, 27, 28 and 54-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-23, 27, 28, 54-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 20-23, 27-28, and 54-66 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 20, 27, 55, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mogab et al., US 5,878,447, in view of Homan, US 4,923,116, and Henson, US 4,612,949.**

With regard to **claims 20, 27, 55, and 63**, Mogab et al. teach a method for releasing water into the water holding structure (2), comprising (e.g., abstract):

providing an electrically actuated valve (48) connected to a water supply line (6) , the valve responsive to electrical valve control signals to open and close (6:32-44),

wherein the valve in an open state releases water from the water supply line into the water holding structure, and in a closed state prevents water from flowing from the water supply line into the water holding structure (6:32-44);

Mogab et al. teach the claimed invention except for providing an electronic control system responsive to a user commands through a control panel to generate the valve control signals, entering a user command through the control panel to actuate the valve; and opening the valve in response to the user command. However these features are taught by Homan (e.g., 12, 14, 9, 6:15-62). Homan's valve (112) is also electrically actuated. One would have been motivated to modify Mogab et al. at the time of the invention to incorporate the teachings of Homan for the purpose of enabling a user to increment or decrement the value of a preselected water temperature while the water is being drawn (2:2-4).

Mogab et al. teach the claimed invention except for automatically closing the valve after a predetermined time has elapsed after opening the valve. This feature is taught by Henson (4:11-18). One would have been motivated to modify Mogab et al. as modified by Homan at the time of the invention to incorporate the teachings of Henson for the purpose of providing an improved water level control system which could be quickly and inexpensively maintained and which could be readily installed on existing pools by individuals of limited mechanical skill utilizing only simple conventional hand tools (1:65-2:2).

With regard to **claims 20, and 55**, the examiner notes, the recitation in a pool or spa installation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead,

the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

With regard to **claims 21, and 56** adding the limitation of manually setting the predetermined time interval during a programming mode. This feature is taught or fairly suggested by Homan (e.g., abstract, fig. 1-2, 3:17-67, 4:31-36). One would have been motivated to modify Mogab et al. at the time of the invention to incorporate the teachings of Homan for the purpose of providing a convenient mixing device that quickly and efficiently performs precise adjustments to achieve and maintain a constant temperature output and on a preprogrammed basis (1:27-31).

With regard to **claims 22, 57, and 65**, adding the limitation of storing in an electronic memory a time value corresponding to the predetermined time interval. This feature is taught or fairly suggested by Homan (e.g., fig. 1, 3:65-67). One would have been motivated to modify Mogab et al. at the time of the invention to incorporate the teachings of Homan for the purpose of providing a convenient mixing device that quickly and efficiently performs precise adjustments to achieve and maintain a constant temperature output and on a preprogrammed basis (1:27-31).

With regard to **claim 23** adding the limitation of automatically closing the valve if the water level reaches an overflow level. Mogab et al. teaches or fairly suggest this feature (e.g., 3:26-33, 4:51-56).

With regard to **claim 27**, the examiner notes, the recitation for controlling operation of a pool service including a water heater, a water filter, and for providing a

semi-automated water fill capability has not been given patentable weight because the recitation occurs in the preamble. (See *infra*).

With regard to **claims 28, and 64**, Mogab et al. does not teach a controller responsive to manually entered user commands entered through a control panel.

However this feature is taught or fairly suggested by Homan (e.g., fig. 1).

With regard to **claim 58** adding the limitation of automatically closing the valve if the water level reaches an overfill level. Mogab et al. teaches or fairly suggest this feature (e.g., 3:26-33, 4:51-56).

With regard to **claim 63**, the examiner notes, the recitation for providing a semi-automated water fill capability to replenish water in the pool or spa has not been given patentable weight because the recitation occurs in the preamble. (See *infra*).

With regard to **claim 66** adding the limitation the control panel including user-actuated button to enter commands and the control system monitors the state of the button. Homan teaches or fairly suggests these features (e.g., figs. 1-3).

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**Claims 59 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lively, US 4,685,158 in view of Mogab et al. and Henson.**

With regard to **claim 59**, Lively teaches a water holding structure (fig. 1), a method for replenishing water (12) in the water holding structure, comprising:

in response to a user identification of a low water condition in the water holding structure (e.g., abstract, 1:23-29; 33-36; 8:43-55),

Lively does not expressly teach electronically actuating a water supply valve connected to a water supply line to release water into the water holding structure. However this feature is taught by Mogab et al. (6:32-44). One would have been motivated to modify Lively to incorporate the teachings of Mogab et al. at the time of the invention because it is highly desirable to have a very efficient and also very effective design and construction of an automatic water regulator apparatus for automatically activating a water supply to fill a swimming pool or the like when the water level reaches a certain minimum threshold and deactivating the water supply when the water level reaches a certain maximum threshold. It is also desirable that the system does not require installation upon construction of the swimming pool or substantial installation and expense on existing swimming pools. It is also desirable that the system can be easily and inexpensively installed by the pool owner to any swimming pool equipped with the water fill line (3:10-21).

Lively does not expressly teach automatically closing the valve after a predetermined time interval has elapsed after actuating the valve. This feature is taught by Henson (4:11-18). One would have been motivated to modify Lively as modified by Mogab et al. at the time of the invention to incorporate the teachings of Henson for the purpose of providing an improved water level control system which could be quickly and inexpensively maintained and which could be readily installed on existing pools by individuals of limited mechanical skill utilizing only simple conventional hand tools (1:65-2:2).

The examiner notes, the recitation in a pool or spa installation has not been given patentable weight because the recitation occurs in the preamble. (See *infra*).

With regard to **claim 62** adding the limitation of automatically closing the valve if the water level reaches an overflow level. Mogab et al. teaches or fairly suggest this feature (e.g., 3:26-33, 4:51-56). One would have been motivated to modify Lively with the teachings of Mogab et al. because it is highly desirable to have a very efficient and also very effective design and construction of an automatic water regulator apparatus for automatically activating a water supply to fill a swimming pool or the like when the water level reaches a certain minimum threshold and deactivating the water supply when the water level reaches a certain maximum threshold (3: 9-16).

**Claims 60, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lively, as modified by Mogab et al., and Henson, as applied to claim 59 above, and further in view of Homan.**

With regard to **claim 60**, Lively, as modified by Mogab et al., and Henson, teach the claimed invention except for manually setting the predetermined time interval during a programming mode. This feature is taught by Homan (e.g., abstract, fig. 1-2, 3:17-67). One would have been motivated to modify Lively, as modified by Mogab et al. as modified by Henson at the time of the invention to incorporate the teachings of Homan for the purpose of providing a convenient mixing device that quickly and efficiently performs precise adjustments to achieve and maintain a constant temperature output and on a preprogrammed basis (1:27-31).



With regard to **claim 61** adding the limitation of storing in an electronic memory a time value corresponding to the predetermined time interval. This feature is taught or fairly suggested by Homan (e.g., fig. 1, 3:65-67).

**Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henson in view of Homan.**

With regard to **claim 54**, Henson teaches a water holding structure (11) and a control system (20), a method for automatically releasing water into the water holding structure (11), comprising:

using an electronic pool control system, monitoring water parameters including a water level sensor signal (2:40-46);

in response to a water level sensor signal indicative of a low water level in the water holding structure, generating electrical control signals to automatically open a water supply valve (33) connected to a water supply line (36) to release water into the water holding structure from a water supply line (2:46-61);

and generating electrical control signals to automatically close the water supply valve after a predetermined time interval has elapsed since opening the valve (4:11-18).

Henson does not expressly teach monitoring water temperature. This feature is taught by Homan (e.g., abstract). A skilled artisan would have been motivated at the time of the invention to modify Henson to incorporate Homan's water temperature monitoring because there is a need, therefore, a convenient mixing device that quickly

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and efficiently performs precise adjustments to achieve and maintain a constant temperature output on a preprogrammed basis (1:27-30).

The examiner notes that the recitation in a spa or pool installation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Pertinent Prior Art***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Nos. 3,997,925, 4,724,552, 5,154,205, 4,368,147, 4,706,310, 4,945,943, 5,313,876, 5,365,617, and 5,394,899 disclose similar aspects of the claimed invention.

### ***Communication with the PTO***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Polk whose telephone number is 703-308-6257. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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April 8, 2003

Sharon Polk

Patent Examiner – Art Unit 2836



**BRIAN SIRCUS**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**